

TABLE 2.—Instrumental reports, June, 1917—Concluded.

| Date.  | Char-acter. | Phase.            | Time.                | Pe-riod.<br>T. | Amplitude.     |    | Dis-tance. | Remarks.                           |
|--|-------------|-------------------|----------------------|----------------|----------------|----|------------|------------------------------------|
|  |             |                   |                      |                | Aa             | An |            |                                    |
| Canada. Victoria, B. C. Dominion Meteorological Service—Continued. |             |                   |                      |                |                |    |            |                                    |
| 1917.<br>June 7  |             | P or S.           | H. m. s.<br>16 22 11 | Sec.           | μ              | μ  | km.        | F?                                 |
|  |             | L.                | 16 37 23             |                | *50            |    |            |                                    |
| 7  |             | P?                | 2 55 25              |                |                |    | 1,100      | San Salvador<br>quake.             |
|  |             | S.                | 2 57 24              |                |                |    |            |                                    |
|  |             | L.                | 2 59 52              |                |                |    |            |                                    |
|  |             | M.                | 3 00 52              |                | *200           |    |            |                                    |
|  |             | F.                | 3 05 50              |                |                |    |            |                                    |
|  |             |                   |                      |                |                |    |            |                                    |
| 8  |             | P?                | 1 04 16              |                |                |    | 4,020      | San Salvador<br>quake.             |
|  |             | IP.               | 1 06 16              |                |                |    |            |                                    |
|  |             | S.                | 1 10 04              |                |                |    |            |                                    |
|  |             | L.                | 1 14 36              |                |                |    |            |                                    |
|  |             | M.                | 1 19 31              |                | *14000         |    |            |                                    |
|  |             | L <sub>rep.</sub> | 3 26 10              |                |                |    |            |                                    |
|  |             | L <sub>rep.</sub> | 3 29 10              |                |                |    |            |                                    |
|  |             | F.                | 3 53 54              |                |                |    |            |                                    |
|  |             | VERTICAL.         |                      |                | A <sub>z</sub> |    | 5,100      |                                    |
|  |             | P.                | 1 04 16              | 3              |                |    |            |                                    |
|  |             | S.                | 1 11 04              | 6              |                |    |            |                                    |
|  |             | L.                | 1 19 06              | 12             |                |    |            |                                    |
|  |             | M.                | 1 30 28              | 14             | 25             |    |            |                                    |
|  |             |                   |                      |                |                |    | F?         |                                    |
| 9  |             | P.                | 17 41 31             |                |                |    |            |                                    |
|  |             | L.                | 17 44 59             |                |                |    |            |                                    |
|  |             | M.                | 17 47 28             |                | *200           |    |            |                                    |
|  |             | F.                | 18 04 49             |                |                |    |            |                                    |
| 10   |             | P.                | 4 33 34              |                |                |    | 550        |                                    |
|  |             | L.                | 4 34 34              |                |                |    |            |                                    |
|  |             | M.                | 4 35 33              |                | *3000          |    |            |                                    |
|  |             | F.                | 4 55 23              |                |                |    |            |                                    |
|  |             | VERTICAL.         |                      |                | A <sub>z</sub> |    | 550        |                                    |
|  |             | P.                | 4 33 34              | 2              |                |    |            |                                    |
|  |             | L.                | 4 34 20              | 6-8            |                |    |            |                                    |
|  |             | M.                | 4 38 02              | 9              | 33             |    |            |                                    |
|  |             | F.                | 4 48 00              |                |                |    |            |                                    |
| 10   |             | L.                | 6 04 18              |                |                |    |            | Probably part of<br>Italian quake. |
|  |             | M.                | 6 08 16              |                | *200           |    |            |                                    |
|  |             | F.                | 6 13 44              |                |                |    |            |                                    |
| 13   |             | P.                | 7 05 12              |                |                |    | 6,380      | S?<br>F?                           |
|  |             | S.                | 7 13 09              |                |                |    |            |                                    |
|  |             | L.                | 7 20 05              |                |                |    |            |                                    |
|  |             | M.                | 7 31 59              |                | *2000          |    |            |                                    |
|  |             | L <sub>rep.</sub> | 9 40 05              |                |                |    |            |                                    |
|  |             | F.                | 10 00 14             |                |                |    |            |                                    |
|  |             | VERTICAL.         |                      |                | A <sub>z</sub> |    |            |                                    |
|  |             | P.                | 7 05 12              | 3              |                |    |            |                                    |
|  |             | L.                | 7 20 30              | 6              |                |    |            |                                    |
|  |             | M.                | 7 38 42              | 20             | 7              |    |            |                                    |
| 16   |             | P or L.           | 15 50 30             |                |                |    | 1,120      |                                    |
|  |             | M.                | 15 52 28             |                | *50            |    |            |                                    |
|  |             | F.                | 15 57 24             |                |                |    |            |                                    |
|  |             | VERTICAL.         |                      |                | A <sub>z</sub> |    | 1,120      |                                    |
|  |             | P or L.           | 15 50 30             | 6              |                |    |            |                                    |
|  |             | M.                | 15 52 30             | 7              | 3              |    |            |                                    |
| 22   |             | P?                | 5 39 43              |                |                |    |            |                                    |
|  |             | L.                | 5 40 42              |                |                |    |            |                                    |
|  |             | M.                | 5 42 11              |                | *200           |    |            |                                    |
|  |             | F.                | 5 45 40              |                |                |    |            |                                    |
|  |             |                   |                      |                |                |    |            |                                    |
| 24   |             | P.                | 20 11 23             |                |                |    |            | L and M lost at<br>cut-off.        |
|  |             | F.                | 20 58 59             |                |                |    |            |                                    |
| 26   |             | P.                | 6 01 56              |                |                |    | 7,510      |                                    |
|  |             | S.                | 6 10 51              |                |                |    |            |                                    |
|  |             | L.                | 6 25 14              |                |                |    |            |                                    |
|  |             | M.                | 6 30 41              |                | *19000         |    |            |                                    |
|  |             | IL.               | 7 23 46              |                |                |    |            |                                    |
|  |             | L.                | 8 15 52              |                |                |    |            |                                    |
|  |             | L.                | 8 19 16              |                |                |    |            |                                    |
|  |             | L <sub>rep.</sub> | 9 35 58              |                |                |    |            |                                    |
|  |             | L <sub>rep.</sub> | 9 42 16              |                |                |    |            |                                    |
|  |             | L <sub>rep.</sub> | 9 46 16              |                |                |    |            |                                    |
|  |             | L.                | 9 52 58              |                |                |    |            |                                    |
|  |             | F.                | 10 22 45             |                |                |    |            |                                    |
|  |             | VERTICAL.         |                      |                | A <sub>z</sub> |    | 8,200      |                                    |
|  |             | P.                | 6 02 00              | 6              |                |    |            |                                    |
|  |             | S.                | 6 11 30              | 12             |                |    |            |                                    |
|  |             | L.                | 6 25 06              | 18-20          |                |    |            |                                    |
|  |             | M.                | 6 27 21              | 20             | 83             |    |            |                                    |
|  |             |                   |                      |                |                |    | F?         |                                    |
| 27   |             | P.                | 12 56 26             |                |                |    |            |                                    |
|  |             | M.                | 13 01 24             |                | *200           |    |            |                                    |
|  |             | F.                | 13 09 50             |                |                |    |            |                                    |
| 28   |             | P.                | 14 34 08             |                |                |    |            |                                    |
|  |             | M.                | 14 37 06             |                | *200           |    |            |                                    |
|  |             | F.                | 14 42 33             |                |                |    |            |                                    |
| 29   |             | P.                | 16 23 30             |                |                |    |            |                                    |
|  |             | M.                | 16 26 57             |                | *100           |    |            |                                    |
|  |             | F.                | 16 33 37             |                |                |    |            |                                    |
| 30   |             | P.                | 18 21 46             |                |                |    |            |                                    |
|  |             | M.                | 18 30 41             |                | *100           |    |            |                                    |
|  |             | F.                | 18 40 37             |                |                |    |            |                                    |

\* Trace amplitude.

TABLE 3.—Late seismological reports. (Instrumental.)

| Date. | Char-acter. | Phase. | Time. | Pe-riod.<br>T. | Amplitude.     |                | Dis-tance. | Remarks. |
|-------|-------------|--------|-------|----------------|----------------|----------------|------------|----------|
|       |             |        |       |                | A <sub>m</sub> | A <sub>n</sub> |            |          |

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Massachusetts. *Cambridge. Harvard University Seismographic Station.*  
J. B. Woodworth.

Lat., 42° 22' 36'' N.; long., 71° 06' 59'' W. Elevation, 5.4 meters. Foundation: Glacial sand over clay.

Instruments: Two Bosch-Omori 100 kg. horizontal pendulums (mechanical registration).

$$\text{Instrumental constants. } \begin{cases} V & T_0 & e \\ \text{E} & 80 & 23 & 0 \\ \text{N} & 50 & 25 & 4:1 \end{cases}$$

|                  |       |          |                     |           |   |   |        |   |
|------------------|-------|----------|---------------------|-----------|---|---|--------|---|
| 1917.<br>Mar. 29 | ..... | eg.....  | H. m. s.<br>2 17 53 | Sec.<br>6 | μ | μ | km.    | Record overlooked<br>in March. First<br>phases masked<br>by microseisms.                |
|                  |       | eL?..... | 2 20 11             | 24        |   |   |        |   |
|                  |       | M?.....  | 2 23 04             | 20        |   |   |        |   |
|                  |       | L.....   | 2 46 59             | 10        |   |   |        |   |
|                  |       | F?.....  | 3 00 —              |           |   |   |        |   |
| 29               | ..... | L?.....  | 3 08 00             | 10        |   |   |        | Probably part of<br>preceding quake.  |
|                  |       | F?.....  | 3 08 20             |           |   |   |        |   |
| Apr. 21          | ..... | Op?..... | 0 52 10             |           |   |   | 8,450? | Only quake in<br>April. Possibly<br>IP. Interpre-<br>tation doubtful.<br>A very slight. |
|                  |       | Is.....  | 1 12 55             | 3         |   |   |        |   |
|                  |       | Is.....  | 1 12 55             | 2         |   |   |        |   |
|                  |       | Ss.....  | 1 13 37             | 10        |   |   |        |   |
|                  |       | Ls.....  | 1 29 46             | 20        |   |   |        |   |
|                  |       | L.....   | 1 38 56             | 18        |   |   |        |   |
|                  |       | L.....   | 1 45 56             | 20        |   |   |        |   |
|                  |       | F?.....  | 2 04 30             |           |   |   |        |   |

SEISMOLOGICAL DISPATCHES.<sup>1</sup>

## Washington, D. C., June 8, 1917.

Dispatches from American Minister Long at San Salvador sent at 9 o'clock last night while the volcano of San Salvador was erupting said part of the city had been destroyed by fire but that it was under control. Great damage was done.

## Washington, D. C., June 8, 1917.

A dispatch said that about 6:35 p. m. yesterday severe earthquake shocks began and continued until about 8:45 with varying degrees of intensity. At about 8:45 the volcano of San Salvador began to belch forth fire and smoke apparently on the side toward Quezaltepeque. There was later one very severe shock, but the tremors of the earth continued with decreasing violence. At the same time there was a steady shower of dry ashes falling over the city. (Assoc. Press.)

## Rome, June 11, 1917.

Four violent earthquakes early to-day caused a panic at Terni. Dispatches received here assert considerable damage was done. All inhabitants of the town fled to the open fields and are now camping out there, fearing further earth tremors. Terni is a town of about 31,000 population, located in the Province of Perugia, 49 miles northeast of Rome. A big Government arsenal is there. The town is famed for its Roman ruins and a cathedral. (Assoc. Press.)

## San Salvador, Republic of Salvador, June 14, 1917.

Several earthquake shocks of varying intensity were felt here yesterday and to-day, but no damage has been reported.

The various relief committees are distributing provisions to the destitute, and shelters are being built to house the thousands of homeless who at present are encamped on the streets. The wounded are being attended by the Red Cross. Several bodies have been recovered at Armenia and Quezaltepeque. The tracks of the Occidental Railway are covered by streams of lava. Several craters of the volcano have formed into one. (—)

## Seward, Alaska, June 18, 1917.

The Pavlof and Shishaldin Volcanoes on the Alaskan Peninsula were in violent action late in May and early in June, according to word brought here to-day by the steamer *Dora*. Smoke and flames poured forth night and day from the Pavlof crater. An earthquake shock lasting two minutes, of such force that people left their homes, was felt at Unga at 10 p. m., May 30. There have been continuous tremors since the National Geographic Society expedition, led by Dr. Robert F. Briggs of the University of Ohio, left Kodiak to visit Katmai last week. Katmai, Redoubt, Lliamna, and St. Augustine Volcanoes also are active, according to report. (Assoc. Press.)

<sup>1</sup> Reported by the organization indicated and collected by the seismological station at Georgetown University, Washington, D. C.